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June 18, 2001

Mr. John Childs
Project Manager, Environmental Resources
Port of Portland
P.O. Box 3529
Portland, Oregon 97208

Re: Report on the Elutriate Testing and Water Quality Monitoring Programs Associated with the Terminal 5, Berth 503, and Terminal 6, Berths 603-605, Dredging Program
15045-01

Dear Mr. Childs:

Hart Crowser is pleased to present the following report associated with the Terminal 5, Berth 503, and Terminal 6, Berths 603-605, Dredging Program: Field and Laboratory Analysis of Dredged Material Elutriate Quality Suttle Road Handling Facility; and Report of Results of the Water Quality Monitoring Program for the Terminal 5, Berth 503, and Terminal 6, Berths 603-605. This report discusses the water quality sampling and analysis programs and presents results of the respective analyses.

The Port of Portland's water quality monitoring program consisted of a four-phased approach that included: (1) *in-situ* testing for sediment quality characterization of the dredged material prior to dredging as well as elutriate water quality characterization (T-6 only); (2) turbidity and chemical monitoring of the water column during dredging activities; (3) continuous visual monitoring of the surface water turbidity during dredging; and (4) elutriate water quality sampling following placement of the dredged material into the Suttle Road Rehandling Pilot facility.

In general, the results of each program are as follows:

- *In-situ* Sediment Quality. DDT was the only chemical found in the sediments from both Terminal 5 and Terminal 6 to be above the sediment screening levels from the Dredge Material Evaluation Framework for the Lower Columbia River Management Area (LCRMA). The sampling results are presented in *Dredge Material Characterization Study; Marine Terminal 6, Berths 603-605; Marine Terminal 5, Berth 503*; dated November 20, 2000, and Addendum No. 1 to this report, dated December 14, 2000.

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- Dredged Material Elutriate Testing. The laboratory modified elutriate test (MET) accurately predicted field conditions, and the dredged material elutriate water was suitable for discharge back to the river after seven days of settling time in the temporary rehandling facility. The results of the pre-dredge laboratory MET and field elutriate testing are presented in *Field and Laboratory Analysis of Dredged Material Elutriate Quality, Suttle Road Rehandling Facility*, dated May 25, 2001 (attached).
- Water Quality Monitoring during Dredging Activities. Monitoring of the water column for turbidity, chemical, temperature, dissolved oxygen, pH, and conductivity indicated no significant impacts downstream of the dredging activities. Chemical and physical sampling results are presented in *Report of Results of the Water Quality Monitoring Program for Terminal 5, Berth 503, and Terminal 6, Berths 603-605*, dated May 16, 2001 (attached).
- Visual Turbidity Monitoring. Visual turbidity monitoring was conducted by the Port construction inspector during dredging. Differences were observed for short durations beyond 100 feet of dredging activities, but no long-term differences in turbidity were observed as a result of dredging activities.

If you have any questions regarding this report, please do not hesitate to contact either one of us at (503) 620-7284.

Sincerely,

HART CROWSER, INC.

HOWARD L. CUMBERLAND
Associate

TODD M. THORNBURG, PH.D
Senior Associate

Attachments: Field and Laboratory Analysis of Dredged Material Elutriate Quality Suttle Road Handling Facility
Report of Results of the Water Quality Monitoring Program for the Terminal 5, Berth 503, and Terminal 6, Berths 603-605